

Claims 1 - 12, as amended

Sub B.1  
1. An information card comprising a memory that stores information data, the information data comprising one of image data and acoustic data;

wherein the information data contains inherent data that is embedded in the information data according to steganographic information hiding; and

wherein the inherent data comprises data that authenticates a legitimacy of a card owner of the information card.

2. The information card according to claim 1, wherein the inherent data further comprises data that authenticates a legitimacy of the information card.

3. The information card according to claim 1 wherein the memory stores a password for permitting the information data to be read from the memory.

4. The information card according to claim 1, wherein the information card employs a customized key in order to give a permission to extract the inherent data from the information data.

5. An information card system comprising:  
an information card comprising a memory that stores information data, the information data comprising one of image data and acoustic data, wherein the information data comprises inherent data that is embedded in the information data according to steganographic information hiding, wherein the inherent data comprises data that authenticates a legitimacy of a card owner of the information card, and wherein the memory stores a password for permitting the information data to be read from the memory; and  
a data processing terminal comprising input means for submitting a password,

password checking means for checking the submitted password against the password stored in the information card to permit the information data to be read from the memory, and output means for outputting the read information data.

6. An information card system comprising:

an information card comprising a memory that stores information data, wherein the information data comprises one of image data and acoustic data, wherein the information data comprises inherent data that is embedded in the information data according to steganographic information hiding; and,

a data processing terminal comprising input means for submitting a customized key, inherent data extracting means for extracting the inherent data with the use of the submitted customized key, and output means for outputting the extracted inherent data.

7. The information card system according to claim 6, wherein the memory stores a password for permitting the information data to be read from the memory, and wherein the data processing terminal comprises input means for submitting a password, password checking means for checking the submitted password against the password stored in the information card to permit the information data to be read from the memory, and output means for outputting the read information data.

8. The information card system according to claim 7, wherein the extracted inherent data is at least partly checked against one of inherent data read from a host and inherent data entered from an external source.

9. The information card system according to claim 6, wherein said system further comprises a means for embedding the inherent data, said means for embedding comprising:

at least one of a means for converting one of image data and acoustic data to pure binary code data, and a means for converting the pure binary code data to canonical gray code data;

means for decomposing one of the pure binary code data and the canonical gray code data into bit planes;

means for segmenting the bit planes into regions according to a complexity measure, and

means for replacing complex region-forming data with the inherent data.

10. The information card system according to claim 9, wherein the means for embedding the inherent data further comprises means for performing a conjugation operation upon the inherent data.

11. The information card system according to claim 6, wherein the memory comprises an integrated circuit chip.

12. The information card system according to claim 6, wherein the information card carries a photograph on a surface thereof, and one of the information data and the inherent data is image data representing the photograph.

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New claims 13 – 20

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13. The information card according to claim 1, wherein the memory comprises an IC chip.

14. The information card according to claim 1 wherein the information card carries a photograph on a surface thereof, and one of the information data and the inherent data is image data representing by the photograph.

15. The information card system according to claim 5, wherein said data terminal further comprises input means for submitting a customized key, and inherent data extracting means for extracting the inherent data with the use of the submitted customized key, and an output means for outputting the extracted information data.

16. The information card system according claim 15, wherein the extracted inherent data is at least partly checked against one of inherent data read from a host and inherent data entered from an external source.

17. The information card system according to claim 5, wherein said system further comprises a means for embedding the inherent data, said means for embedding comprising:

at least one of a means for converting one of image data and acoustic data to pure binary code data, and a means for converting the pure binary code data to canonical gray code data;

means for decomposing one of the pure binary code data and the canonical gray code data into bit planes;

means for segmenting the bit planes into regions according to a complexity measure,

and

means for replacing complex region-forming data with the inherent data.

18. The information card system according to claim 17, wherein the means for embedding the inherent data further comprises means for performing a conjugation operation upon the inherent data.

19. The information card system according to claim 5, wherein the memory comprises an integrated circuit chip.

20. The information card system according to claim 5, wherein the information card carries a photograph on a surface thereof, and one of the information data and the inherent data is image data representing the photograph

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